BEFORE THE STATE OF WASHINGTON

ENERGY FACILITY SITE EVALUATION COUNCIL

IN RE APPLICATION NO. 96-1	)	
	)	**Exhibit: RHA-1**
OLYMPIC PIPELINE COMPANY:	)	
CROSS CASCADE PIPELINE PROJECT	)	

Witness: Robert H. Anderson

PREFILED TESTIMONY OF MR. ROBERT H. ANDERSON

ISSUE : Cross-Valley Sole Source Aquifer Characterization and Protection

The Olympic Pipeline Company proposes to construct the Cross-Cascade Pipeline through sensitive aquifer areas, including the Cross Valley Water District Sole Source Aquifer. The Draft Environmental Impact Statement prepared for this project does not present sufficient data or adequately discuss the Cross Valley Aquifer in sufficient detail for the CVWD to determine the risk posed to its drinking water supply and the adequacy of possible mitigation measures. This prefiled testimony is written to describe and explain hydrogeological issues that affect the assessment of potential contamination of this sensitive aquifer

SPONSOR : Cross Valley Water District

EXHIBIT REFERENCE :

WJR-1: Groundwater Quality Issues and Risks within the Cross Valley Sole Source Aquifer Area from the Proposed Cross-Cascade Pipeline. Report to Cross Valley Water District prepared by Golder Associates Inc. (Sections 3 and 4)

DISCUSSION

Synopsis of Issue

Groundwater is an important resource in Washington, and supplies drinking water to nearly 2 million people statewide. There is significant pressure on water utilities to identify new water supplies that are both adequate for growing demands and environmentally sound. The development of new groundwater supplies has been severely curtailed in recent years as a result of environmental concerns regarding the possible reduction in streamflows from the development of groundwater supplies. For this reason, existing groundwater supplies are extremely valuable, as the opportunity to develop new groundwater supplies will only continue to diminish. The Cross Cascade Pipeline crosses two major aquifer systems in the Puget Sound area (Cross Valley Aquifer and Snoqualmie Aquifer) that can support substantial water supply demands both now and into the future. Other smaller aquifers are also traversed. Although assurances are made by the applicant that protection will be achieved, there does not appear to be a comprehensive and systematic assessment of the high quality aquifers that would be traversed by the pipeline. The Cross Valley Water District in particular is currently utilizing its existing system to its maximum extent, and cannot afford to lose one of its wells. Additional consideration of groundwater and water supply aquifers is warranted.

A limited risk analysis was conducted that indicates a 4% chance that a spill could impact one of the CVWD wells over a 50 year time-frame. Water utilities typically plan using a 50-year time-frame, and also plan for climatic events (i.e. droughts) that have similar probabilities. It is therefore reasonable for CVWD to assume that, within the limitations of the risk analysis, they will experience water quality problems in one of the wells over

its planning period as a result of the Cross-Cascade Pipeline. The CVWD does not have excess capacity at present, and cannot afford to lose one of its wells. Therefore, an alternative source must be assured.

The applicant is required under WAC 463-42-322 to "provide detailed descriptions of the affected natural water environment, project impacts and mitigation measures and shall *demonstrate* that facility construction and/or operational discharges will be compatible with and meet state water quality standards". The application and the DEIS prepared based on that application fails to meet the requirements of WAC 463-42-322 with regards to groundwater resources and is too general for CVWD, or any groundwater user to assess the potential risk of contamination to its water supply.

A number of existing regulatory programs that exist to protect and preserve the quality of groundwater in the State of Washington were reviewed and are summarized in Exhibit WJR-1. Water districts, such as the Cross Valley Water District, depend on the proper implementation of these programs for the protection of the water quality to its customers. No reference was found in the DEIS or permit application to this guidance and its applicability for characterizing and managing potential risks to groundwater quality resulting from siting of the Cross-Cascade Pipeline. Existing state guidance is generally quite specific regarding the type of information necessary and the level of detail recommended when considering projects that have the potential to contaminate groundwater. Therefore, there is no indication that the project is "consistent with and [will] meet state water quality standards".

The hydrogeology of the Cross Valley Aquifer is not presented to the level of detail necessary to evaluate the potential pathways and consequences of a pipeline release along the proposed pipeline alignment. The application does not, therefore "provide detailed descriptions of the affected natural water environment". Additionally, a predictive analysis of the impacts from the construction and operation of the proposed pipeline has not been conducted. The application does not, therefore, "demonstrate that facility construction and/or operational discharges will be compatible with state water quality standards".

Conclusion

The importance of groundwater as a resource put at risk by the project is understated and existing groundwater protection programs are not utilized to the extent necessary for siting of a major facility that has the potential to contaminate groundwater.

It is reasonable for CVWD to assume that they will experience water quality problems in one of their wells over its planning period as a result of the Cross-Cascade Pipeline.

There remains sufficient uncertainty regarding the hydrogeology of the Cross Valley Aquifer that it is not possible for the CVWD to determine whether the mitigations proposed by the applicant sufficiently protect the aquifer.

Recommendation

Cross Valley Water District (CVWD) will need mitigation and contingency plans that reflect the site specific and operational aspects of the CVWD service area. CVWD should request that OPC develop a spill prevention, mitigation and monitoring plan specifically for the Cross Valley Aquifer. The plan should clearly identify actions and contingencies, as well as how and when they will be implemented. OPC should work closely with CVWD on this plan, and should provide additional site-specific data in order to support the selection of specific actions. OPC should obtain significant guidance and oversight from CVWD in the design and implementation of a mitigation and monitoring strategy for a this regionally significant sole-source aquifer. The City of Renton is developing (at OPC's expense) a protection plan for its aquifer areas that is traversed by an OPC pipeline. This approach may be applicable to CVWD. Preparation of the plan and concurrence by CVWD should be a part of any stipulated agreement with OPC

The likely combined capital and operational costs to CVWD and OPC for developing a comprehensive spill response plan (including site characterization, modeling, monitoring network design and implementation), followed by a conventional mitigation response to one large spill and the eventual installation of a treatment system at one or more CVWD wellheads, is at least 3 million dollars.